

ANNUAL OPERATIONS AND PROGRESS REPORT

From Month/Year 1/1/85
to Month/Year 12/31/85

(To be submitted for each mining operation at the end of each calendar year to the Division at this address:)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
(801) 538-5340

OPERATOR: MARBLEHEAD LIME COMPANY MINE NAME: UTAH MARBLEHEAD LIME

ADDRESS: P.O. BOX 596, GRANTSVILLE, UTAH 84029

PERMIT NUMBER AND DATE OF PERMIT: ACT/045/003 - 9/27/83

REPRESENTATIVE: ERNEST E. BURGH, UTAH MARBLEHEAD LIME, 390 E. JOE ORR ROAD

SECTION(S): 22, 26, 27, 35 TOWNSHIP(S): 2-N RANGE(S): 9-W
1, 2 1-N 9-W

MINERAL(S) MINED: LIMESTONE

STATE AND/OR FEDERAL MINERAL LEASE NUMBERS: N/A

SPECIAL USE PERMITS AND/OR RIGHTS-OF-WAY: N/A

Section 40-8-15 and Rule M-8 of the Utah Mined Land Reclamation Act, requires each operator to include with this report an up-dated map and plan prepared in accordance with Rule M-3, as outlined in the requirements for annual report maps in Appendix I, providing a detailed status of all mining and reclamation activities which have occurred during the past year.

The report should include:

MINING:

(a) Tabulation of acreage disturbed (by pits, roads, facilities, etc.) during the report period with illustration on a current map.

<u>Disturbance</u>	<u>Acreage</u>
Pit	<u>NONE</u>
Roads	<u>NONE</u>
Facilities	<u>NONE</u>
Waste Dumps	<u>NONE</u>
Other	<u>NONE</u>

(b) Tabulation of acreage affected to date (by years).

<u>Date by Year</u>	<u>Acreage (Total)</u>
1975	_____
1976	_____
1977	_____
1978	_____
1979	_____
1980	_____
1981	_____
1982	_____
1985	<u>159 - Includes</u> plant site, quarry & all roads.

(c) Tabulation of all topsoil (new) stockpile volumes (see chart below) and date of stockpiling.

SOIL TABULATION CHART

Area Affected (in mining sequence) (If more space is needed, please attach.)	Area			
	1	2	3	etc.
Acreage of Area	_____			
Depth of Topsoil Removal (inches)	_____			
Depth of Topsoil Replacement (inches)*	_____			
Estimate of Topsoil Volume Salvaged (yd ³ or ac ft)	_____			
Volume Actually Salvaged (yd ³ or ac ft)	_____			
Volume Required for Reclamation (yd ³ or ac ft)	_____			
Surplus or Deficit Volume (yd ³ or ac ft)	_____			
Storage Status (short- or long-term)	_____			

Soil Tabulation Chart (continued)

Area Affected (in mining sequence)	Area			
	1	2	3	etc.
Storage Location				
Area Where Soil Has Been Used (if not stored)				
Running Total (all stockpiles) (yd ³ or ac ft)				
Short-term				
Long-term				

*Of previously stripped area recently reclaimed.

(d) Tabulation of all (newly removed) out-of-pit spoil volumes, date of placement and illustration on a map.

<u>Area</u>	<u>Date</u>	<u>Acreage</u>

(e) Tabulation of quantity of commodity mined.

	<u>Commodity</u>	<u>Tonnage</u>
(Mined)	DOLOMITIC LIMESTONE	0
(Milled)	HIGH CALCIUM QUICKLIME - RECEIVED FROM WENDOVER, NEVADA	50,000

(f) Description of any new construction during the report period with illustration on a map, including, but not limited to:

1. Buildings and support facilities. NONE

2. Roads.

3. Diversion ditches, collector ditches, interceptor ditches, etc.

4. Culverts.

5. Sediment ponds, containment ponds.

6. Monitoring sites (vegetative, air quality, surface subsidence, surface water or ground water, etc.).

7. Topsoil stockpiles.

(g) Description of any environmental problem areas with a proposed plan for mitigation and illustration on a map, including, but not limited to:

1. Pit stability problems. NONE

2. Subsidence.

3. Accidental water discharge, dam failure, etc.

4. Slumping, sliding or erosion.

5. Revegetation problem areas.

6. Existence and location of unsuitable (toxic) overburden.

RECLAMATION:

(a) Tabulation of the acreage reclaimed during the report period with illustration on a map, distinguishing between:

1. Backfilled, graded and contoured areas.

	<u>Area</u>	<u>Acreage</u>
TEST PLOTS	225' x 95'	≈ 1/2 ACRE
See attached map for location.		
<hr/>		

2. Topsoiled areas.

	<u>Area</u>	<u>Acreage</u>
TEST PLOTS	225' x 95'	≈ 1/2 ACRE
<hr/>		
<hr/>		

3. Seeded areas.

<u>Area</u>	<u>Acreage</u>
165' x 66' - 5 TEST PLOTS, EACH 33' x 66'	≈ 1/4 ACRE

4. Reseeded areas (areas previously seeded, then seeded again).

<u>Area</u>	<u>Acreage</u>
NONE	

(b) Tabulation of total acreage reclaimed (seeded with permanent seed mix) to date by years with illustration on an updated map:

<u>Year</u>	<u>Acreage</u>
1975	
1976	
1977	
1978	
1979	
1980	
1981	
1982	
1983	
1984	
1985	1/4 ACRE - TEST PLOTS

(c) Description of the reclamation procedures used during the report period, including:

1. Average depth of topsoil applied.
3" to 4"

2. Type of seed (species) used for seeding during the report period.
Bluebunch Wheatgrass, Thickspike Wheatgrass, Galletta Grass, Indian Ricegrass,
Gooseberryleaf Globemallow, Yellow Sweetclover, Winterfat, Fourwing Saltbush.

3. Date of seeding during the report period.

Spring _____

Fall November 11, 1985

4. Seeding procedures used.

(Hand broadcast or drilled or any other).

Hand Broadcast

5. Rate of seed application.

Pounds Per Acre of Pure Live Seed (PLS) (if varied, please explain)

14 lbs/acre on all 5 Test Plots - One test plot was seeded with individual
seeds and fertilized; one plot with seed mix and fertilizer; two plots with
seed mix, two different fertilizers and mulch; one control plot, seed only.
See attached drawing.

6. Type and rate of fertilizer applied.

Two Test Plots - 40-0-30 @ 30 lbs/acre

Two Test Plots - 16-16-8 @ 30 lbs/acre

7. Type and rate of mulch applied.

One test plot each of different fertilizer mix had wood fibre mulch applied
@ a rate 2000 lbs/acre. Mulch was applied with a Bowie 2500 Hydroseeder.

8. Rate of irrigation water applied, if any. Please describe any
type of sprinkling, or water applied (water truck, etc.).

None

9. Revegetation test plot information.

(Cover, density, productivity, etc.)

10. Soil analysis results.

(d) Description of results of previous revegetation efforts, including:
(This should be done as applicable.)

1. Types (species) of seed that have germinated and are growing.

2. Types (species) of seed that are not growing successfully.

3. Areas experiencing problems with weeds and weed types.

4. Significant erosional problems.

5. Areas of unsuitable overburden on the surface as related to revegetation failure.

6. Procedures used or proposed to correct these problems.

7. Acreage and dates of release (upon inspection by the State) of revegetated areas.

<u>Area</u>	<u>Date</u>	<u>Acreage</u>

8. Results of soil analysis.

(e) Summarization of the reclamation costs incurred during the report period, including itemized costs for each operation (i.e., grading, topsoil replacement, seeding, etc.) and for each type of disturbance (i.e., spoil, haul roads, facilities removal, etc.) on a per acre basis.

	<u>Acres</u>	<u>Cost/Acre</u> ⁽²⁾
1. Grading	<u>None</u>	<u>-</u>
2. Backfilling	<u>None</u>	<u>-</u>
3. Contouring	<u>≈ 1/2 Acre</u>	<u>\$480/Acre</u>
4. Topsoil Replacement	<u>≈ 1/2 Acre</u>	<u>\$960/Acre</u>
5. Seeding		
A. Seedbed Preparation	<u>≈ 1/2 Acre</u>	<u>\$240/Acre</u>
B. Mulch	<u>≈ 1/8 Acre</u>	<u>\$1300/Acre</u>
C. Fertilizer	<u>≈ 1/4 Acre</u>	<u>\$300/Acre</u>
D. Seed	<u>≈ 1/4 Acre</u>	<u>\$145/Acre</u>
(1) 6. Other - Fencing	<u>≈ 1/2 Acre</u>	<u>\$960/Acre</u>
Total Cost for Implementing Test Plots -		<u>\$2,320.00</u>

BOND INFORMATION:

- A. An updated bond estimate should be included, if required in the Division's approval of the Mining and Reclamation Plan (MRP) or if changes to the MRP have occurred, including a detailed itemization of actual/estimated reclamation costs as outlined in the RECLAMATION section above. The date of the release of revegetated areas from further responsibility for a partial bond release, if applicable, should also be included.

	<u>Amount</u>	<u>Type</u>	<u>Date Posted</u>
Present Bond	<u>\$119,257.00</u>	<u>Surety</u>	<u>Sept. '83</u>

- (1) Used to keep cattle out of test plot area.
(2) High dollar per acre cost is due to small size of test plots and for move-in charges of Hydroseeder.

Increased disturbance, if any:

Increased Bond Amount (attached reclamation estimate).

B. Bond release.

<u>Acres</u>	<u>Bond Amount Released</u>	<u>Date</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

ADDITIONAL INFORMATION:

Supply any additional information as requested by the Division related to:

- (a) Permit stipulations (status).
- (b) Other special conditions (status).

APPENDIX I

ANNUAL REPORT MAPS

1. Maps must be clear and legible contour maps or recent aerial photos. The scale should be 1 inch = 500 feet to adequately show topographic features.
2. Map sheets should be of a reasonable size, not to exceed 48 inches on a side.
3. Maps must have a title block with:
 - A. Map title.
 - B. Name and address of permittee.
 - C. Permit and amendment numbers.
 - D. Annual report period.
 - E. Scale, north arrow, contour interval, date of photography, etc.
4. All maps must show:
 - A. Legal subdivisions.
 - B. Permit area boundary clearly shown and labelled.
 - C. Amendment areas clearly shown and labelled.
 - D. Contour features.
5. The following features should all be clearly identified:
 - A. Topsoil stockpiles (numbered and with volumes).
 - B. Settling ponds and sediment control structures.
 - C. Haul roads.
 - D. Pits identified by location, name, number, etc.
 - E. Ramps (numbered).
 - F. Out-of-pit spoil dumps.
 - G. All waste disposal sites including, but not limited to:
 1. Landfill sites.
 2. Carbonaceous waste dumps.
 - H. Diversion ditches.
 - I. Monitoring sites.
6. All areas to be affected by mining and reclamation in the coming year should be outlined and labelled.

Double Strand Barbed Wire Fencing

	Individual SEEDS						
	16-16-8 Fertilizer (30 lbs/Acre)						
SEED mix 16-16-8 Fertilizer (30 lbs/Acre) Wood Fiber Mulch (2000 lbs/Acre)							
SEED mix, ³⁴ 40-0-30 (30 lbs/Acre) Wood Fiber Mulch (2000 lbs/Acre)							
SEED mix AND ³⁴ 40-0-30 Fertilizer (30 lbs/Acre)							
Control Plot SEED mix Only							

All Test Plot Sizes @ 33' x 66'
Area Fenced Approximately 225' x 95'





AE/045/003

MARBLEHEAD LIME COMPANY

A GENERAL DYNAMICS COMPANY

390 EAST JOE ORR ROAD • CHICAGO HEIGHTS, ILLINOIS 60411 • 312/757-6201

RECEIVED

JAN 13 1986

**DIVISION OF OIL
GAS & MINING**

January 6, 1986

Mr. Lowell P. Braxton - Administrator
Mineral Resource Development and Reclamation Program
State of Utah
Department of Oil, Gas and Mining
355 W. North Temple
3 Triad Center - Suite 350
Salt Lake City, Utah 84180-1203

RE: 1985 OPERATIONS AND PROGRESS REPORT - FORM MR-3

Dear Mr. Braxton:

Attached please find our Form MR-3 - Annual Operations and Progress Report, with associated maps and drawings for 1985. As in last year's report, all changes have been in areas already improved in previous years.

If any questions arise or additional information is needed, please contact myself or Philip N. Raines.

Respectfully,

Ernest E. Burgh
EB

Ernest E. Burgh
Vice President - Operations

EEB/bb
Attachments

cc: E.J. Penman
P.N. Raines
Alan Jensen - Utah Marblehead Lime